

CLAIMS

1. (Original) A photoelectric cell comprising first and second electrodes, a plurality of nanowires which extend between the electrodes, and a structure disposed between the nanowires.
2. (Original) A photoelectric cell according to claim 1, wherein the structure is a columnar structure.
3. (Currently amended) A photoelectric cell according to ~~claim 1 or claim 2~~, wherein the structure comprises tubes each of which are located around a respective nanowire.
4. (Currently amended) A photoelectric cell according to claim 3, wherein the tubes extend between the electrodes.
5. (Currently amended) A photoelectric cell according to claim 1 ~~any preceding claim~~, wherein the structure comprises organic polymer material.
6. (Currently amended) A photoelectric cell according to claim 5 ~~claim 4~~, wherein the organic polymer material comprises a cross-linked organic compound.
7. (Currently amended) A photoelectric cell according to claim 5 ~~claim 4 or 5~~, wherein the organic polymer material comprises a polyaromatic compound.
8. (Currently amended) A photoelectric cell according to claim 5 ~~any one of claims 4 to 7~~, wherein the organic polymer material is in a liquid crystalline phase.
9. (Original) A photoelectric cell according to claim 8, wherein the phase is a columnar liquid crystalline phase.

10. (Currently amended) A photoelectric cell according to claim 1 ~~any preceding claim~~ wherein the nanowires are fabricated from inorganic material.
11. (Original) A photoelectric cell according to claim 10, wherein the nanowires are fabricated from inorganic semiconductor material.
12. (Original) A photoelectric cell according to claim 11, wherein the inorganic semiconductor material comprises II-IV or II-VI inorganic nanocrystals.
13. (Currently amended) A photoelectric cell according to claim 11 ~~or claim 12~~, wherein the nanocrystals have an ionisation potential that is higher than that of the surrounding inorganic material.
14. (Currently amended) A photoelectric cell according to claim 10 ~~any of claims 10 to 13~~, wherein the inorganic material comprises transition metal ions.
15. (Original) A photoelectric cell according to claim 14, wherein the transition metal ion is selected from the group consisting of cadmium and zinc.
16. (Currently amended) A photoelectric cell according to claim 10 ~~any of claims 10 to 15~~, wherein the inorganic material comprises an anionic species.
17. (Original) A photoelectric cell according to claim 16, wherein the anionic species is selected from the group consisting of sulfur, selenium and tellurium.
18. (Currently amended) A photoelectric cell according to claim 1 ~~any preceding claim~~, wherein the nanowires are less than 20 nanometres in diameter.

19. (Original) A photoelectric cell according to claim 18, wherein the nanowires are less than 10 nanometres in diameter.
20. (Original) A method of fabricating a photoelectric cell comprising the steps: formation of nanowires within a templating agent; and placement of the nanowires between first and second electrodes so that the nanowires extend between the electrodes.
21. (Original) A method of fabricating a photoelectric cell according to claim 20, wherein the templating agent is formed by a method comprising the steps: dissolution of a salt of an organic compound in a solvent under conditions suitable for self-organisation of the organic compound to form a gel containing nanotubes; and polymerisation of the nanotubes to form polymeric nanotubes.
22. (Original) A method of fabricating a photoelectric cell according to claim 21, wherein the nanotubes are photochemically polymerised.
23. (Currently amended) A method of fabricating a photoelectric cell according to claim 21 ~~or 22~~, wherein the nanowires are formed by treatment of the gel with an anion source.
24. (Original) A method of fabricating a photoelectric cell according to claim 23, wherein the anion source is selected from the group consisting of hydrogen sulfide, hydrogen selenide and hydrogen telluride.
25. (Cancelled).
26. (Cancelled).